

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (previously presented): A vehicle control method, comprising:

applying a vibration to a tire in a running state to reduce a coefficient of friction in a longitudinal direction of the tire, between the tire and the surface of a road, and so as to increase a coefficient of friction in a width direction of the tire between the tire and the road, wherein the vibration is applied in a revolution direction of the tire,

thereby controlling the running state of the vehicle,

wherein the vibration is a micro-vibration having a frequency falling within the range of 20Hz - 1kHz.
2. (canceled).
3. (previously presented): The vehicle control method according to claim 1, wherein in addition in the revolution direction of the tire, the vibration is also applied in a load support direction of the tire.
4. (previously presented): The vehicle control method according to claim 1, wherein an amplitude of the vibration is modulated to a range of 1 to 2,000 % of the depth of a tread of the tire or the thickness of a top tread of rubber of the tire.
5. (canceled).
6. (previously presented): The vehicle control method according to claim 1, wherein a frequency of the vibration is modulated to a range of 20 Hz to 1 kHz.

7. (previously presented): The vehicle control method according to claim 1, wherein at least one of an amplitude, a frequency and a phase of the vibration to be applied to the tire in the revolution direction of the tire, is controlled to minimize a rolling resistance of the tire caused by friction between the tire and the surface of a road at the time of running.

Claims 8-10. (canceled).

11. (previously presented): The vehicle control method according to claim 3, wherein at least one of an amplitude, a frequency and a phase of the vibration to be applied to the tire in the revolution direction of the tire, is controlled to minimize a rolling resistance of the tire caused by friction between the tire and the surface of a road at the time of running.

12. (previously presented): The vehicle control method according to claim 4, wherein at least one of the amplitude, a frequency and a phase of the vibration to be applied to the tire in the revolution direction of the tire, is controlled to minimize a rolling resistance of the tire caused by friction between the tire and the surface of a road at the time of running.

13. (canceled).

14. (previously presented): The vehicle control method according to claim 6, wherein at least one of an amplitude, the frequency and a phase of the vibration to be applied to the tire in the revolution direction of the tire, is controlled to minimize a rolling resistance of the tire caused by friction between the tire and the surface of a road at the time of running.

15. (previously presented): The vehicle control method according to claim 3, wherein at least one of an amplitude, a frequency and a phase of the vibration to be applied to the tire in the load support direction of the tire, is controlled to minimize a rolling resistance of the tire caused by friction between the tire and the surface of a road at the time of running.

16. (previously presented): The vehicle control method according to claim 4, further comprising applying another vibration in a load support direction, wherein at least one of the amplitude, a frequency and a phase of said another vibration to be applied to the tire in the load support direction of the tire, is controlled to minimize a rolling resistance of the tire caused by friction between the tire and the surface of a road at the time of running.

17. (canceled).

18. (previously presented): The vehicle control method according to claim 6, further comprising applying a third vibration in a load support direction, wherein at least one of an amplitude, the frequency and a phase of the third vibration to be applied to the tire in the load support direction of the tire, is controlled to minimize a rolling resistance of the tire caused by friction between the tire and the surface of a road at the time of running.

19. (previously presented): The vehicle control method according to claim 1, wherein the vibration is also applied in the width direction of the tire.

20. (previously presented): The vehicle control method according to claim 19, wherein at least one of an amplitude, a frequency and a phase of the vibration to be applied to the tire in the revolution direction of the tire, is controlled to minimize a rolling resistance of the tire caused by friction between the tire and the surface of a road at the time of running.

21. (previously presented): The vehicle control method according to claim 19, wherein at least one of an amplitude, a frequency and a phase of the vibration to be applied to the tire in the load support direction of the tire, is controlled to minimize a rolling resistance of the tire caused by friction between the tire and the surface of a road at the time of running.